

Amendments to the Specification

Please insert on page 1, after the "BACKGROUND OF THE INVENTION" and before the "Field of the Invention" the following paragraph [0001]:

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation of U.S. Application 09/984,664, filed October 30, 2001, and published on May 29, 2003 as patent application publication number US-2003-0099950; which are incorporated by reference herein in their entirety.

Paragraphs [0069] to [0071] are amended as follows:

[0069] ~~FIG. 29. Abortive transcription initiation reaction with a labeled initiator and a labeled terminator. The labeled dinucleotide initiator 5'TAMARA SpApG was mixed with the labeled terminator, SF-UTP, to generate the oligonucleotide product, TAMARA-SpApGpU-SF. The formation of TAMARA-SpApGpU-SF was measured in a temperature controlled microtiter plate reader by fluorescence energy transfer. The plate was set to read every hour at the following parameters: Excitation 485, Emission 620, Gain 35, 99 reads per well per cycle. (A) The signal over background. Background is defined as a well containing only distilled water. A reading was taken every hour for 12 hours starting at time 0. Fluorescein is excited using a 360 nm wavelength filter; the resulting emission peak is at 515 nm. If the TAMRA is in close proximity to the fluorescein it becomes excited as its peak excitation is at 542 nm resulting in an emission peak of 568 nm. (B) The signal over mock reaction. The mock reaction contains all the components of the reaction except the E. coli RNA polymerase and the pBR322 plasmid. A reading was taken every hour for 12 hours~~

~~starting at time 0. Fluorescein is excited using a 360 nm wavelength filter; the resulting emission peak is at 515 nm. If the TAMARA is in close proximity to the fluorescein, it becomes excited as its peak excitation is at 542 nm resulting in an emission peak of 568 nm.~~
(C) ~~The signal over SF-UTP. The SF-UTP reaction contains all the components of the reaction except in place of TAMARA-ApG, it contains an unlabeled ApG. A reading was taken every hour for 12 hours starting at time 0. Fluorescein is excited using a 360 nm wavelength filter; the resulting emission peak is at 515 nm. If the TAMARA is in close proximity to the fluorescein, it becomes excited as its~~

[0070] FIG. 30: FIG. 29A and B. Portion of the contig sequence of the CDKN2A gene. The sequence represents a small portion of the contig starting at 856630 nucleotides from the start of the contig sequence. The sequence represents a CpG island. Contig number: NT_008410.4.

[0071] ~~FIG. 31:~~ FIG. 30. Schematic representation of a "capture probe" to determine the methylation status of a specific gene. Oligonucleotide probes that are specific for a region near the CpG island of the target gene are immobilized onto a microtiter plate. The DNA of interest is added to the immobilized probe and bound to the capture probe. The DNA is then chemically modified to convert unmethylated C to T, and leave methyl-C unaffected. The converted DNA can then be amplified by an optional PCR step to further enhance the signal. A labeled CpG initiator is then added with an RNA polymerase and labeled nucleotide(s).

Paragraph [0244] is amended as follows:

[0244] ~~As shown in Figure 29A, as~~ As the oligonucleotide product is generated, energy transfer occurs between TAMARA-SpApG and SF-UTP, which changes the wavelength at which TAMARA emits. If RNA polymerase or DNA is omitted from the reaction, there is no transfer of energy between the initiator and the terminator, and no change in the wavelength at which TAMARA emits (~~Figure 29B and 29C~~).